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LEADING ARTICLES

TOURING THE LANDS WHERE MEDICAL SCIENCE EVOLVED.

SEVENTH PAPER.*

ROBERT G. ECCLES, M. D.

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[FOR THE MEDICAL FORTNIGHTLY.]

SCANDIA TO GALLIA CISALPINA.

In previous letters concerning "The Lands Where Medical Science Evolved," all descriptions have been of places visited during my peri-terrestral tour. To have closed the series with only what was seen during that journey would have left the story very incomplete. Germany and its neighboring countries were not included in that itinerary, yet they have added enormously to the later phases of medical development. On this account it has been deemed advisable to include them in this separate chapter. A previous tour made by Mrs. Eccles and the author supplied the material with which to complete the record and bring it down to our own day. We had become wearied of spending our holidays seeing American sights and determined upon a change. "The Land of the Midnight Sun" appealed to our curiosity as a proper region to see and securing a state-room on the Steamship Etruria of the Cunard Line, we proceeded to Great Britain. Having spent some days in the British Isles we made our way to Newcastle-on-Tyne where we found the Norwegian cruising ship Vega on which we had 'booked' passage before leaving New York. The accommodations were excellent, and had we not happened to have an exceedingly windy passage across to Bergen everything would have been most agreeable. Byron tells us that,

> "There's not a sea that traveller e'er pukes in
> Turns up more dangerous breakers than the Euxine."

His experience and ours do not seem to have been alike. During our visit to Turkey we found the Euxine calm and peaceful near where it enters the Bosporus. Had he been with us on the German Ocean he might have had a different notion. Its foam-crested, boiling, surging billows beat everything in our experience. We frequently thought of the school-book poem about the Norse sailor to whom such tempests are "only a thing of laughter," and wondered if any of them would love this one "better than sleep." Our seamen certainly did not seem to have any such affection for it, as they, like the passengers, failed to appear at the tables during meal hours. The wind fairly screamed through the rigging. The Vega tossed, tilted, waltzed, and staggered like a toper. Suddenly she would sink away from beneath our feet and then, just as suddenly she would go up with a jerk that reminded us of a catapult. The screw propeller, now in water, then in air, and again divided between the two would shake and jar the timbers of the vessel as if about to tear them asunder. Great waves inundated the decks every few minutes, and as far as the daring eye ventured to look across the deep it had the appearance of a solid mass of soap foam. We had thirty-odd hours of this to endure before reaching the placid waters between the coast islands and the mainland. When the "Oh!—My!" feeling was about at the verge of uncontrolability, despite the prostrate position, a knocking at our state-room door and a cry of, "Come quickly, doctor, a woman passenger is dying!" started me up with a jerk. "How the deuce do they know that I am a doctor?" I asked my wife., "The purser must have

*The first chapter of this series of letters, "Grecian," appeared in the Medical Fortnightly, issue of October 10, 1908; rhe second chapter, "Christian and Saracen." appeared January 11, 1909; the third, "Medieval and Renaissant," appeared March 10, 1909; the fourth, "Iberia and Lusitania," May 10; Gallia Transalpina, July 26; Britannia, November 25, 1909.

seen that you were addressed as doctor, on the letters he had for you when we came on board," she replied. This proved to be the case. The ship had no physician of its own on board, and it became my duty to try the impossible task of curing an ailment in others that baffled my skill to thoroughly subdue in myself. The moral every medical reader, who expects to go a-touring, should take home to himself.

As soon as we passed the island barrier and began skirting the coast the sailing became heavenly. If, instead of trying to save time by taking this short-cut across that tempestuous sea we had gone around, via France and Denmark, to Bergen it would have been impossible to have conceived of a voyage of greater comfort, more bewildering beauty of landscape or more thorough enjoyment than that one proved to be. Many doctor friends have followed us on that route since, and all have declared that it is unsurpassable in everything that an ideal tour should be. Days extend into weeks of calm enjoyment. The sea along the coast is as smooth as a river. The sky, in July that year, was as clear as that of Italy, except at North Cape. There the Arctic Ocean brings very frequent clouds. The fjords are indescribably beautiful. No photograph, or even cinemetograph, can do them justice. In any picture that can be made but one side can be seen at a time. They lose the sense of all-roundness which the real scene produces in us. The frequent rides behind Norwegian ponies, on what the Norwegians call Stolkjars, break any possible monotony that might arise. These are taken overland, from fjord to fjord, the ship, in the meantime going ahead to meet the passengers at the next fjords after leaving them in the deepest recesses of one. In this way alternate fjords are seen upon the ship in opposite directions, by going into one and coming out at another. If readers who have visited the deep and wide canons of the Rocky Mountains will imagine these canons to have, instead of small streams, navigable rivers in which ships can sail, they will get a fair idea of the fjords of Norway. To complete the picture they must add, here and there, innumerable cataracts, make most of the peaks snow clad, and have villages, churches and isolated homes scattered among trees, with here and there an occasional glacier. The water is so deep that the ship can sail near the coast without danger. There is an abrupt descent into an abyss of water at the very edge of the shore. Like our Yosemite Valley, they are all cut out by glaciers. The people met on the short, overland trips between the fjords, are honest, truthful, peaceful, unostentatious, and accommodating. The flower-clad roads constitute a botanist's paradise. Even at the very tip of Europe, where the waters of the Arctic Ocean lave the shore, there is an abundance of beautiful wild-flowers. The globe-flowers and forget-me-nots are particularly beautiful there. The first named are double buttercups with petals folded-in like burnished golden roses. The tourist can gather these at all hours of the night with, in the absence of clouds, the bright sun shining upon him. At midnight, at 2 a.m., at 3 a.m., at any hour he chooses, he is at liberty to look at the sun. If sleep is desired, the state-room windows have to be curtained to keep out the light. Instead of setting, the sun circles round and round the sky, being in the south at midday and in the north at midnight.

The Vega only took us as far as Trondheim, the ancient capital of Norway. There we changed into the Neptun, another Norwegian ship. This carried us to North Cape and back. A very delightful part of this voyage is made among the Lofoden Islands where we were surrounded by numerous fleets of cod-fishing vessels. At the near-by city of Tromso most of the cod liver oil for the world is made. At Hammerfest we visited the most northern city on our globe, and were surprised to find in its streets numerous electric lamps. These are used during the six months of continuous night that they are compelled to endure. They have one day and one night to the year. In summer it is all day. In winter it is all night. Numerous Laplanders can be seen here and on some of the Lofoden Islands. They are short of stature, dirty, and in many ways remind one of the Indians of our western plains.

On return to Trondheim we went by train to Upsala and Stockholm, in Sweden, instead of going back to Bergen. While we were in Bergen we recalled the fact that it is the birthplace of the great pathologist and expert surgeon, Theodor Billroth. The first resections of larynx and of stomach were done by him. He was professor at Zurich for some time but later removed to Vienna where he taught in the university.

On reaching Sweden our first important stop was at Upsala. Here, in the university, the celebrated Linneus taught botany and here he wrote his famous "Systema Naturae" that revolutionized both zoology and botany. Here, too, Scheele resided for a short time hoping for recognition from

the university which he never received. Both Scheele and Linneus made their homes at Stockholm before moving to Upsala, and both had to struggle against opposition and poverty. By a lucky accident Linneus won his way to wealth and honor, but Scheele's full worth was not realized until he was dead. While Linneus was striving to build up a practice as a physician a lady-in-waiting upon the queen had heard of a prescription that had "miraculously" cured a cough and that he had written. She called upon him and got a copy of it. Fortunately it acted "like a charm," and the grateful patient told the queen of how she got cured of just such a cough as was troubling her majesty. The queen had Linnus prescribe for

DR. THEODOR BILLROTH.

her and after that his fortune was made. Most of the rich people of the city made him their doctor and he soon became wealthy and renowned. His ambition to meet men of science and to have them give him a respectful hearing, that he had so long vainly sought, now were his. Thus it happened that so trivial an event as the writing of a prescription for a cold led to the acknowledgment of worth in an obscure and struggling savant whose ideas were scouted by those whom the world thought were the best of judges. But for that prescription it is pretty certain that our knowledge of living things would have been much less today than it is. Poor Scheele had no such good fortune befall him. His fame began to grow in France and England just before his death, but like most prophets he had little or no honor in his own country. Millions upon millions of dollars have been made from his discoveries but none of it reached his hands. Think of the money that has been made in the manufacture of glycerine, tartaric acid, gallic acid, citric acid, hydrocyanic acid, oxalic acid, benzoic acid, malic acid, and Scheele's green, and then think that he was the first man in the world to produce these and many other commercial substances, for all of which he did not even win the bauble—reputation, until it was too late to benefit him.

But Sweden had another great chemist and he, like Linneus, was more successful than Scheele. This was Berzelius. A park is now named for him and a fine statue that stands in its centre tells of his greatness. It is but a short distance from the Grand Hotel, Stockholm, the hotel patronized by nearly every tourist and that is one of the finest in Europe, for situation, accommodations and comfort. After practicing medicine for a short time Berzelius turned his attention to chemistry upon which subject he lectured at the Military Academy. A little later and he became professor of medicine and pharmacy, then president of the Academy of Sciences, then chemist to the Swedish iron works, then a senator, and finally he was made a baron. To him we owe many of our chemical elements, many valuable methods of physical and chemical research, and he gave us our present system of chemical symbols. While in Stockholm we took several pleasant walks in Berzleius' Park. We also visited the tomb of Linneus and the statue of Scheele taking more interest in seeing these than in gazing upon the statues of Birger Jarl, Bernadotte, or of Gustavus III, that are deemed worthy of attention by strangers. From our window in the hotel we had a beautiful view of the Royal Palace, just across the Norrstrom. A peculiar public elevator, behind the palace, and known as the "Katarinabisson," was also in sight. The museums were immediately to our left and beyond them the Deer Park and the Tivoli. All of these were visited in turn and a trip taken to Drottingham and its beautiful summer palaces. Admission to all of the palaces was easily obtained.

On our first arrival in Stockholm we observed a number of particulars in which Swedish ways differ from ours, and on stopping, later, at Goteburg and Trolhattan we discovered more of them. In the bedrooms there is generally a huge porcelain affair that reaches from floor to ceiling and decorated as the plates, cups and saucers of our fathers used to be. This we learned is the kind of stove they use in winter. As soon as a traveller arrives he is shown to a room whither he is followed

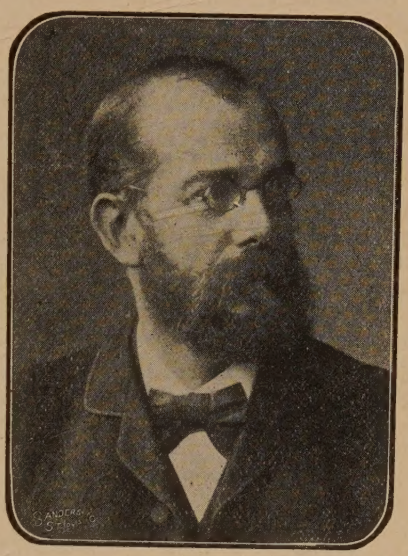
by a clerk with the hotel register. If the room is satisfactory the register is placed open before him, on a table, and an inked pen handed to him. On looking at where he is expected to place his signature he discovers that a detailed history is wanted. At the top of the page, and across its face are printed in bold type the words: "Dato," "Namn," "Charactaire," "Nation," and "Rum." Getting past the date and name the American guest is puzzled to know what to write under "Charactaire." With Nation there was no trouble, but with "Rum" a guess had to be made as to the meaning. In the hall the observant traveller would note over one of the doors that he passed the startling words: "DAM BAD RUM" and elsewhere "BAD RUM." Such apparent profanity was not mitigated by the remembrance of the fact that a couple or three days before our train had stopped for fifteen minutes at a railway station distinctly and conspicuously labelled, in several places, with the name, "HELL." In demanding to know something about our character the suggestion occurred as to whether they wanted to know if we had been denizens of the last named place. In a few days we discovered that Dam meant lady, that Bad meant bath, and that Rum was the Swedish for room. In hotels and steamboats we discovered that no one is expected to wait at the table, foodless, until the waiter has time to take an order and serve it. As the guest enters the dining-room, or in the hall near the entrance, a table is spread with spiced foods, cheese, bread, crackers, and appetizing liquors. This is their so-called "smorgas," or appetizer. He goes forward, helps himself, carries this beginning of a repast to his table and proceeds to masticate the same while waiting for the waiter. A detailed account of the costumes of Delacarlia, of the canals, lakes and locks, of the habits of the people, and of the many odd things seen during a tour of Sweden would extend this story beyond alloted space, yet all were interesting.

A night's ride in a "Sofvagn," or sleeping car, carried us from Goteburg to Helsingborg. Here we crossed the Sound to Kronberg, the port of Elsinor, in Denmark. At Elsinor the tourist sees Hamlet's grave and the place where he is supposed to have seen his father's ghost. After a brief stay here we proceeded by train to Copenhagen. To the Dane this, his capital, is known as Kjobenhavn. The average Dane knows of no such city as Copenhagen until he comes in contact with foreigners. To the latter this is a delightful city by any name, however unpronounceable, and as a rule the Thorwaldsen Museum is the place first sought out. Whoever has been in Luzerne and seen its famous lion, carved among the cliffs, has ever after wanted to visit Denmark and see Thorwaldsen's masterpieces and his home. Whoever has seen his "Day," and his "Night," wants to see more of such work. While the average tourist is enjoying the original world famed "Tivoil" the dragon tower, the cathedral, Amalienborg, the Stork Fountain, Rosenberg Palace, etc., the medical tourist will desire to see the university where Kasper Bartholin taught medicine and Greek and the place where he wrote his celebrated Anatomie. It was here he discovered the glands of Bartholin and here that his son, at a later date, defended Harvey's circulation of the blood. The up-to-date doctor will also desire to see Finsen's Medical Institute and the State Serum Institute where Finsen and Madson have brought change and progress to the medical practice of our own day. The State Serum Institute is particularly worthy of notice, as the work of Dr. Madson, in conjunction with the work of Svante Arrhenius, of Stockholm, is bringing us to a true realization of the meaning of serum therapy.

From Denmark we proceeded to Hamburg by way of Zealand, Funen, Jutland, and Schleswig Holstein. In the latter state we passed near Tonning, the birthplace of Esmarch, of bandage and bloodless surgery fame. Our route was a much less comfortable one than that generally followed by tourists. We were routed out at 2 a. m. to change trains and have our luggage examined by the custom officers. Schleswig Holstein is German territory, has its own German trains and German officers. Had we gone by ship to Lubeck we would have had an all night sail without being disturbed till morning. Had it been stormy, however, it might have proven even more uncomfortable. Probably the two most interesting sights supplied by Hamburg to tourists is its harbors and park. The former is more fascinating than that of New York because of the complex mazes of canals, rivers and quays. The latter in part was at one time the site of a city wall or fortification. Beyond it, in one direction, lies Altona while in the opposite direction is the main part of Hamburg. The Zoological and Botanic Gardens are connected directly with the park. The anomalous relations of Altona to Hamburg is often a subject of comment. The laws and taxes of the two cities are quite different, and yet it is diffi-

cult for any one to know were the one ends and the other begins. Some stores have their entrance in one city and their windows in the other. It was here that medical science gained its first positive proof that water was responsible for the carrying of cholera. The water supplies of the two cities being distinct the infection could be traced to one of them to the exclusion of the other. The sights that principally attract travellers, aside from those already named, are the Elb Bridge, Alster Pavilion, Sandthorqual, Town Hall, Exchange, and St. Nicholas Church. The medical tourist is interested in knowing that this was the home of Fritz Schaudinn, the discoverer of the germ of syphilis, and that he died here a comparatively young man. As a protozoologist he had won a world-wide recognition.

From Hamburg we proceeded to Berlin, the Mecca of modern medical science. Most of the very interesting sights of Berlin, exclusive of those of its environments, are found on, or near to, Unter den Linden, between the Brandenburg Gate and the statue of Frederick the Great. The Brandenburg Gate is the entrance to the Zoological Gardens. Unter den Linden is an exceedingly handsome street, always crowded in fair weather, and frequently a route for parades. It gets its name from the numerous Tilia, or "Linden" trees, with which it is lined. The American Tilia, or "basswood," is a larger leaved species of the same genus. The Arsenal with its Halls of Fame, the Palace of the Crown Prince, the Royal Library, the Opera House, the Palace of the Emperor, the Academy of Fine Arts, and the university buildings are all on or within easy reach of this thoroughfare. In the last named medical men should be greatly interested. Here the eminent chemist Stahl taught. Here he promulgated a medical doctrine that was almost a counterpart of Christian Science, but freed from the superstitions of the latter. He thought nature was almost all-sufficient as a disease cure if we would but have faith. Here his great rival, Hoffman, the first producer of Hoffman's anodyne, was often seen when serving as the physician of Frederick I. Here Schelling, the idealist, taught, as professor of Philosophy, and stamped the medical science of the succeeding generation with his mark. Here Schonlein, pupil of Schelling, started his "Natural History School of Medicine," the logical outcome of Schelling's teachings as modified by later views of science. Here Schiller, the army surgeon and great poet, likwise absorbed Schelling's views. Here, too, Goethe, the other great German poet and the prophet of Evolution, also took in inspiration from Schelling. Here Johannes Muller taught Physiology as it had never been taught before. Soon after getting his professorship in Berlin he started his "Archiv. fur Anatomie und Physiologie" and continued their publication till he died. Over 260 original contributions to physiology, zoology, and psychology, came from his fecund pen. He sustained the position taken by the Scotch physiologist Bell regarding the functions of the nerve fibres. One has but to hear the names of his many renowned students to appreciate his great influence upon the



PROFESSOR ROBERT KOCH.

development of modern medical science. Is there not magic in the names of Virchow, Helmholtz, Haeckel, DuBois Raymond, Ludwig, Volkman, and Brucke. These all studied under Muller and all drank in the inspiration of his forceful teachings. Schwann, too, the first man in the world to see an animal cell, was trained by him. Virchow took the chair of Pathological Anatomy in this university, in 1856. He first started students in the study of microscopical anatomy. His "Cellular Pathology" was published in 1858. It opened up a new era for medical science. He cleared up our ideas regarding pyemia. Helmholtz began work as an army surgeon, took the chair of anatomy at the university in 1848, changed to the chair of physics in 1871 and died in 1894. To him we are indebted for the opththalmoscope, for our knowledge of tone sensation, for our

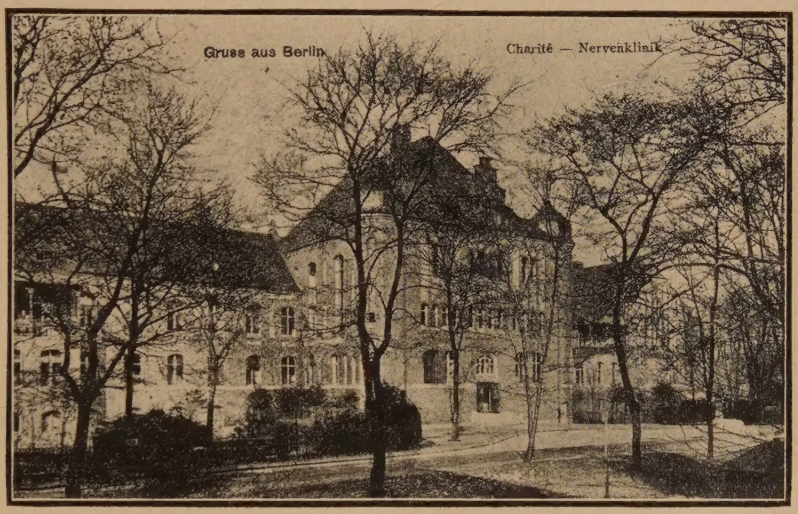
knowledge of the sound spectrum, and for multitudes of experimental proofs of the doctrine of the conservation of energy. This doctrine has wrought as great a change in human thought, and in all scientific thought, as has the germ theory of disease, or the theory of natural selection. It would make a long story to tell of all the good things that have come to medical science from Berlin University and from its professors and students who are scattered over the world. We must not, however, pass unnoticed the names of Oskar Liebreich, among the dead, and of Robert Koch and Emil Fischer, among those who are still alive. To Liebriech we are indebted for our knowledge of chloral hydrate and of lanolin. In his theory of "noso-parasitism" he anticipated Wright's doctrine of "Opsonins." In isolating cholin and protagon he made a first step toward a chemistry of brain tissue and of the chemistry of the cell nucleus. Of Robert Koch every medical man in the world has heard. His isolation of the tubercle bacillus and his proof of its being the cause of tuberculosis constituted a brilliant and epoch-making piece of work for medical science. He is now professor in the university and director of the new institute for infectious diseases. His countrymen paid him the honor he was well worthy of and took pains to let all the world know of the great work he had done. They do such things better in Germany than we in America. There is there no "Conspiracy of Silence," as Doctor Salmon once called it. Every American doctor knows of the work of Koch. What relative proportion of them know of the work of Theobald Smith? In my humble opinion, greatly as I appreciate the work of Koch, I cannot help believing that that of Smth is greater still. Each opened up a new epoch for medical discovery. Koch's task was exceedingly difficult, but Smith's was still more so. What Koch is to medical bacteriology Smith is to medical protozoology. Without Smith's work I am unable to conceive of how Manson and Ross could have given us our present knowledge of trypanosomiasis and of malaria. Unfortunately for Professor Smith the immediate result of his work was related to cattle and not to human beings. Fortunately for Professor Koch his work had a direct bearing upon a human malady. As far more human beings suffer and die from malaria, yellow fever, trypanosomiasis, and kindred protozoon diseases, than from tuberculosis, the American's work is the more beneficial in its far-reaching and important effects. Please let the reader remember that I would not for any consideration try to have him look lightly on Koch's work. On the contrary, the world is never likely to bestow upon him more than a small fraction of the honor which is rightly his. This, however, should not blind us to the merits of a countryman of our own who is at least his peer, but who, through a false and vicious policy of our own educated classes, has failed to receive any reasonable approach to the respect and honor that we all owe him. There are many other Americans who are suffering from this dry-rot-of affectation that maximizes European scientific work while minimizing that done in our own country. I may be mistaken, but it all looks as if short-sighted jealousy was the indirect cause—the fear that some other scientific worker might outclass and overshadow ourselves. We yet have to learn the lesson that is said to have been so pointedly put by one of the signers of the Declaration of Independence, that "We must all hang together, or we will hang separately."

But this is a digression from our story of Berlin. There is now at work there a comparatively young man whose labors are opening up to our understanding what may almost be called the very Holy of Holies of the Temple of life. This man is Professor Emil Fischer, the great biological chemist. My readers ought to become acquainted with his work if they are not already familiar with it. Here, indeed, "Coming events cast their shadows before." The knowledge he is supplying concerning polypetids carrying us into the heart of true physiology and laying the foundation for a structure that promises to soon give us secrets concerning living things not at present dreamt of in our popular philosophies.

Before leaving Berlin we took a trip to Potsdam to see the birthplace of Helmholtz. Incidentally we "did" the Royal palaces, the Orangery, the Sicilian Gardens, Sanssouci, Babelsberg, Fiedenskirche, Pfingstberg, and the Charlottenhof. After this feast of artificially produced beauty, and after several interesting carriage rides through other suburbs of the city we took a train for Amsterdam. We had intended going to the Hartz Mountains, seeing the wonderland of Hans Christian Andersen, and getting a peep at the Spectre of the Brocken, but when a tourist goes on the Spree he is likely to be so captivated by its environing charms that he dallies too long to leave time for other enjoyments. Had we visited the Hartz country a stop at Gosler would have been made. Being then interested in alkaloids the produc-

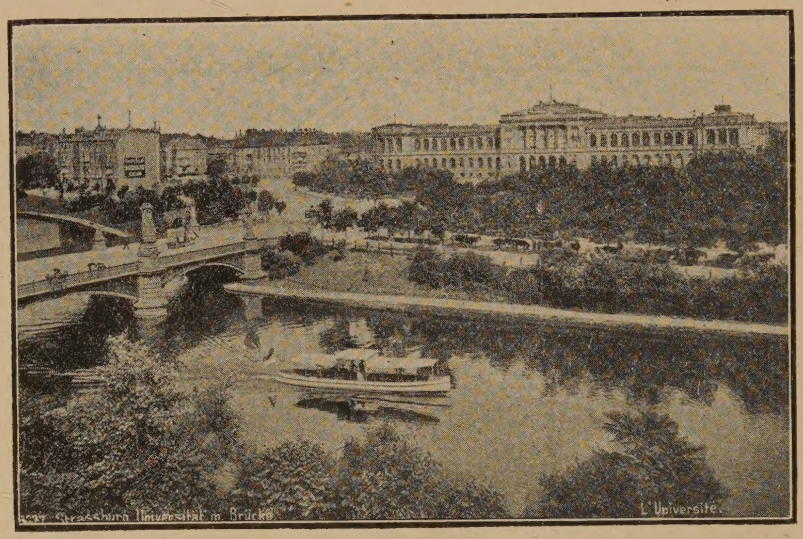
tion, by Dr. Albert Neumann, of cocaine was attracting our attention, and Gosler being his home we wanted to see it. As our train sped toward the west we hoped that it might take us in that direction, but instead it went considerably north of that place after passing Halberstedt.

Concerning the country between Berlin and Amsterdam my diary, for some reason, says but little. It mentions the fact that the women seen from the car windows wore strange looking costumes, and that on our entering Holland we had to turn our watches back an hour. Once in Amsterdam we recalled the fact that it is a city built upon some ninety islands that, like Stockholm, its houses are supported on stakes driven into the ground, that Erasmus once referred to its people as living like birds on the tops of trees because of their homes resting on the tops of these stakes, that most of the diamond cutting of the world is done here, and that it was the home of Rembrandt. No other city in the world so nearly resembles Venice in having canals for streets, boats for carriages and horses, and doing most of its transportation by water. Its Museum van der Hoop, Museum Fodor, and Rijks Museum constitute the centers for sight seeing tourists. Its zoological and botanic gardens are the attractions for naturalists. The latter is where Prof. Hugo de Vries raised the evening primroses that appeared to spontaneously develop new species per saltum. The solving of the problem as to how and why these flowers changed their specific characters so suddenly is one of the puzzles of the present-day biology and one on which hangs much of practical interest for future medical science. A visit to suburban Zaandam is always in order as every traveller wants to see where Peter the Great donned the attire of a common workman and sought to learn the mysteries of Dutch ship building, in order to strengthen the maritime power of Russia. When in Zaandam tourists can scarcely see anything for the numberless windmills. In journeying from there to Haarlem these dominate everything but the dikes. The wooden shoes, baggy trousers, and strange head-gear of the men and the equally fantastic costumes of the women are every where in evidence. Everybody there seems to work, but the women and dogs are the chief beasts of burden. All the farmers try to own a number of dogs to do their heavy work, but when too poor to buy these they do not hesitate at yolking up their wives and daughters to the carts, and plows, or loading them up with immense baskets filled with produce to carry to market. When not thus employed every woman in that country keeps hard at work, anyway, cleaning and scrubbing themselves and homes. Nowhere else in the world is there so much "elbow-grease" put into the scrubbing of floors, doors, or furniture. This kind of work seems to be a perfect mania among them. The great industry around Haarlem is the raising of lily and other bulbs for foreign gardens. In the season of flowers the country around Haarlem is one vast flower garden. From there to Leyden is a monotonous repetition of



BERLIN HOSPITAL FOR NERVOUS DISEASES.

dikes, dogs, ditches, and dams, with windmills by the hundred. The great attraction of Leyden is its university. The Leyden jar of the electrician got its name from here, Here Boerhaave first used the thermometer for clinical purposes, and here he established the first successful clinics at a university in order to facilitate the education of medical students. Here he gave the first special lectures on ophthalmology and here, in his clinic, he compelled Peter the Great to await his turn among a lot of charity patients. Here the first famous lithotomist, Rau, taught anatomy and surgery, and for the first time used a cadaver for purposes of demonstration. Here Le Boe, commonly called Sylvius, taught his chemical system of medicine which, though fantastic, led to research and discovery. In the University of Leyden many of the greatest men in various of the sciences were taught. From Leyden we proceeded to the Hague. This is the prettiest city in the Netherlands. Its streets contain fine houses and its canals are not numerous enough to be wearisome. Its private gardens are full of pretty flowers. Its promenades are filled with handsome trees. To us the statue of William the Silent was one of its most interesting sights. This George Washington of Holland dared to defy the brutal and inhuman Philip II of Spain, and fight for political and religious liberty. From the Hague we took trips to Scheveningen, the great watering-place of Northern Europe, and to Delft, the original home of pottery in Europe. To us the interest of his last named queer Dutch town resided in the fact that it is the birth-place of Anthony van Leeuwenhoek, the man who was the first to microscopically study the brain, the arterioles, bacteria, and protozoa. He first showed how the veins were connected with the arteries and clinched the truth of Harvey's doctrine of the circulation of the blood. In this city, too, De Graaf practiced medicine. He discovered the graafian follicles of the ovaries. After seeing Rotterdam we hastened on to Antwerp. We had often heard of its beautifully finished cathedral and wished to see it, as well as to see the city in which the first bible was translated from the original languages, by Tyndale. He, poor fellow, was burnt as a heretic at the stake because of his devotion to religion. In the south transept of the cathedal is Reuben's famed masterpiece, "The Descent from the Cross." This great painter is buried here, in the Chapel of St. Jaques.



UNIVERSITY BUILDINGS, STRASSBURG, GERMANY.

From Antwerp we proceeded to Brussels, the Paris of Belgium. It is in many ways a small replica of Paris. Its Grande Place is declared to be the "finest medieval square in existence." Its Galerie St. Hubert and connecting arcades constitute as pretty and attractive a shopping place as there is in any country. Its Palais de Justice is one of the largest buildings in the world. It occupies more ground space than St. Peter's at Rome and cost ten millions of dollars. On the Rue Royal is the house in which the Duchess of Richmond gave the celebrated ball on the night before the battle of Waterloo, and to which Byron refers in his poem on that battle. In the

Place d' Orange there is a statue to Vesalius, the man who redeemed medicine and surgery from ancient ways. He was born here. We have already referred to him as a professor at Padua and elsewhere. This, too, was the birthplace of van Helmont and his statue can be seen in the grain market. He modified the system of Paracelsus into a more acceptable type of medical practice.

After visiting the field of Waterloo we proceeded to Cologne, saw its renowned cathedral and the old home of Karl Marx, the great socialist, as well as a number of the interesting things around and in that city, and then proceeded to Bonn. The University of Bonn is its chief sight. Here the present Emperor of Germany was taught, here Johannes Muller, to whom reference has already been made, prosecuted his medical studies. Here Helmholtz taught and here Liebig, the world-famous chemist, graduated. Here, too, Karl von Noorden, now professor of Physiology at Vienna, and great authority on diabetes, was born. From Bonn to Mayence we sailed on the far-famed River Rhine, saw its castles, its vineyards, its romantic and attractive scenery, and its Lorlei. After a short stop at Coblenz we continued our journey to Bingen where we again made a stop and then proceeded to Mayence. Coblenz is the birthplace of Johannes Muller. From Mayence, we went by train to Dramstadt, the birthplace of the great chemist, Liebig, and the site of the chemical works of E. Merck. These works have stood in Darmstadt for over a century, and in them has been manufactured most of the organic, chemical remedies prescribed by medical men throughout the world. Here the first morphine and quinine, made in commercial amounts, was produced. During our stay at Darmstadt we took a trip to Frankfort before going on to Heidelberg. Every visitor to Frankfort is sure to see the birthplace of Goethe; the bridge with the old iron crucfiix and rooster, on the Main; the printer's monument to Guttenberg, Faust, and Schaeffer, the first of the world's printers using movable type, their homes having been here; the statues of Schiller, and Charlemagne; and the grave of Schopenhauer. Medical tourists are sure to go and see Dr. Senkenberg's Citizen's Hospital, his medical institute, his anatomical theatre, his botanic garden, and his library. The museum of the Senckenbergsche Naturforschende Gessellschaft will likewise be of interest to them. But above all else the new Royal Institute for Experimental Therapy, under the care of Dr. Paul Ehrlich and his collaborators, will attract the attention of the up-to-date medical man. Here the wonderful research work of Ehrlich, Morgenroth, Neisser, Lipston, Rehns, Sachs, von Dungern, Proscher, Shiga Marx, and Keyes has been carried out. The foundation for such work was first made in this country by Salmon and Theobald Smith and then carried on by Roux, Behring, and Kitasato. Through such work we are solving the secrets of immunity.

At Heidelberg we were greatly interested in the beauty of its surroundings and in its old university—the oldest in Germany. Its famous castle, high above the city and above the Neckar River, adds materially to the beauty as well as to the historical interests of the place. Large numbers of American students come here to finish their education so that it is a place that is well known to many Americans. The great Helmholtz, to whom we have already referred, taught physiology here and away back in 1653 Brunner, for whom Brunner's glands are named, was likewise a professor in the university. Brunner studied medicine at Strassburg and to this city we made our way after leaving Heidelberg. In Strassburg Kobert, the great toxicologist and pharmacologist, of Rostock, was born and Professor Paul Ehrlich studied medicine here. Every school boy has heard of the great astronomical clock in the cathedral of this city and longed to hear it strike and see its procession of strange figures at the striking hour. Almost every person must have seen pictures of Strassburg storks standing upon one leg on the quaint old-fashioned chimneys of this curious looking place. A view of the city from the cathedral tower is worth a long journey to see. From Strassburg we went by rail though the corner of the Black Forest to Schaffhausen, the birth-place of Johann Konrad Peyer, the discoverer of Peyer's glands. Most typhoid patients who are seriously attacked with this disease learn sooner or later, something about "Peyer's patches."

A short journey from here brought us to the celebrated Falls of the Rhine. After drinking in their beauty for a while we took the train for Zurich, Switzerland. Here Oken taught, and near here Paracelsus was born. Haeckel tells us that Oken's ideas came nearer to those of Darwin than did any other predecessor. Paracelsus taught medicine in Basil until wine upset his equilibrium and caused him to accuse all doctors and pharmacists of ignorance and dishonesty. They then turned around and pronounced him the worst of quacks. We owe the use of mercury in syphilis to him, and

he first rescued the use of cinchona from the Jesuit priests. The great embryologist and anatomist Wm. His was born at Basil.

Our next stopping place was Berne, the home of the great physiologist, Haller, who first taught us the doctrine of muscle irritability, and who as a botanist was surpassed only by Linneus. Berne was likewise the home of Dr. Kocher who first showed us the way to the discovering of the functions of the thyroids. The beauty of Swiss scenery it is unnecessary here to describe, nor need I tell of our interesting tours through Swiss mountains and Swiss valleys. It would only be the repeating of an oft told tale. With Switzerland ended our tour of the "Lands Where Medical Science Evolved." To have completed the picture Austria-Hungary and Russia should have been included, but these countries we have not yet visited, though we hope to be able to do so before long, and thus be able to tell the readers of the "Medical Fortnightly" something about a number of medical worthies who have not been mentioned in our narrative, but who have done much to help medical science to its present exalted position.

191 Dean Street.

THE INDETERMINATE STAGE.

WILLIAM F. WAUGH, A. M., M. D.

CHICAGO, ILL.

Dean and Professor of Therapeutics, Bennett Medical College.

If there is real progress in the art of medicine, and not merely a succession of kaleidoscopic pictures shifting with every shake of the box, we must be constantly clearing the outlines of diseases, getting more distinct pictures of them, fixing more clearly their characteristics that we may not mistake one for the other. As we do this, we must find ourselves able to recognize each malady at an earlier stage of its development; for we must learn how each particular grouping of symptoms will be followed by that particular development that we denominate this or that disease.

As we thus trace each malady back toward its source we must in time come to an indeterminate stage, where conditions too similar to be differentiated may develop into any one of a number of maladies. The doctrine of specificity cannot be pushed to the point of declaring every malady a specific entity from the earliest inception, except in the case of germ diseases. A "cold" may localize itself on any one of a number of tissue areas, and there is a time when we are at a loss to know which will be attacked. The patient is ill, yet we cannot yet positively diagnose the malady. Indeed, chance may yet play a part and direct it to one location or the other. Dr. A. K. Minich once made the curious observation that all his pneumonias were affected on the side next the windows of their bedrooms.

It is in this early formative stage, while as yet the malady has not seated itself firmly in the tissues, that our therapeutics should prove most effective. Everybody believes in his, and especially in her, ability to break up a cold; and the nihilism that consigns to the refuse heap as useless the hot bath, cold compress, cathartic, diaphoretic and emetic, would meet scant favor with the kindly disposed laity, who want to be helpful. Nor is there any evidence whatever to show that such intervention is not of avail, if employed early. On the other hand, there is plenty of evidence that by effectual treatment many colds are broken up and many a serious illness aborted.

Take the controversy now being waged between the editor of an eastern medical journal and his readers, over the possibility of jugulating a pneumonia. The editor is not a practician, has never been one, and has formed his ideas from the text-books, where every malady is described with a beautiful precision that no mortal man ever encountered in actual practice. According to him every pneumonia must pass through the classic stages of hyperemia, hepatization and resolution, or else it is not a pneumonia. If the attack stops spontaneously in the hyperemic stage or is cut short there, it is not and would not have been a pneumonia. Consequently there are two entirely distinct pulmonary hyperemias, one of which must go on to hepatization, the other can not possibly do so; and if any hyperemia fails to go on to hepatization it would have stopped there anyhow, and the doctor had nothing whatever to do with stopping it. As for the doctor's being of any use to the patient, beyond diverting his mind, "jollying" him and making him think the doctor is doing something for him, that is a mistake. How any honest man could participate in such rascality, or take money for such a lying pretense, we cannot quite realize.

The real doctor does not believe this hideous doctrine. He firmly believes that hyperemias can be prevented from running into hepatization, and that he is doing this. He

believes that the same symptoms that usher in a pneumonia in one case signify pneumonia in other cases; and that if prompt treatment directed against the main factors of the disease removes these main factors, and these being removed there isn't any disease left, that he by applying the treatment really cured the patient, and is entitled to the credit and the pay for doing so.

Under the circumstances the jury is apt to take the word of the men who know rather than of the one who has been told.

When we reach this indeterminate stage we find ourselves among the as yet unformed elements of disease, the prime factors not yet united. There is our opportunity for effective intervention. The man of determination jumps into a crowd of surly, dissatisfied workmen, floors the leader, or sets the crowd into a roar with some apt joke, dominates the situation and dissipates the riot before it becomes one. "Yes," says a nihilistic editor, "but there was no riot. There never would have been one."

May be so; then why should one imperil his life trying to do a thing? Just wait until the mob gets at work, murdering, destroying property and firing buildings. Then call out the troops and shoot them down.

In this indeterminate, preliminary stage, we constantly find as the prime factors of forming disease, fecal autotoxemia, defective elimination and vasomotor disequilibrium. Clear the alimentary canal, start excretion, and equilibrate the circulation—and then try if you can, to persuade your self that you have done nothing at all, that the patient was not going to be sick, and would have been all right next day if you had not "butted in." Tie up the spouting artery—it was just going to stop anyhow!

If our editor would only modify his mode of expression a little, and say that he does not know how to jugulate pneumonia, we could agree with him heartily: When he says nobody can do so, he assumes that his own powers comprise those of the whole medical profession, which may seem a bit conceited. But when he says pneumonia can not be jugulated, he assumes omniscience, and we were brought up too reverently to allow that to any mere mortal.

The lemon syrup, which is generally sold in bottles, is manufactured from tartaric acid; a fraud, rather harmless in character, as no injury results from its use.

REPORT OF A CASE OF RUPTURE OF MEMBRANA TYMPANI WHILE USING A TELEPHONE.

A. F. KOETTER, M. D.

ST. LOUIS.

I have taken the liberty to report this case on account of the peculiar manner in which this injury was received, and also to call attention to the misleading instructions of the telephone company to their patrons. I refer to the paragraph which instructs patrons as the proper use of the telephone, and reads as follows: "Place the receiver close against the ear."

Patient, a stenographer of 35, came to me with the following history: While responding to a telephone call, which had been ringing insistently for several minutes, on placing the receiver close to the ear, felt a popping in left ear followed by pain and tinnitis. This so frightened her that she dropped the receiver. She also noticed an impairment of the hearing in the left ear. That evening she consulted a physician who diagnosed a rupture of the membrane. Some dried blood was noticed in the external canal, and on the membrane at the site of the rupture. The physician removed this, no further discharge occurred. Patient was referred to me for treatment. Examination revealed a tear in posterior inferior quadrant of membrane, color pale red tinnitis and impaired hearing still continue, pain had ceased about one hour after injury was received.

Functional test: Weber to the affected side. Rinne negative, whispered voice about four and one-half feet. Perforation was allowed to close. Right ear fairly normal in appearance, hearing normal. Inflation of left ear with Eustachian catheter, in six weeks normal hearing, tinnitis disappeared.

An explanation of the workings of the telephone would not be amiss at this time. When the receiver is raised from the hook, an induction current of about a voltage of 15, which is sometimes increased to as high as 30, causes a light to burn at the operator's desk next to the number of the subscriber, the operator sees the light, but does not feel the current; she moves the listening key, inserts the plug into jack or hole, thus completing the circuit and calls number, if at this moment the subscriber pulls the hook up and down the operator feels a clicking and popping caused by the to and fro movements of the membrane in the receiver, which may be felt more intensely if the receiver is held close and air-tight against the ear. The operator does not feel

the current in the slightest degree. When the subscriber calls the number the operator tests the number by pressing the plug slightly over the jack, if busy she feels a slight click in the ear and the subscriber gets the busy signal; if not busy she inserts the plug and is now cut off from the line, unless she pushes the listening key forward when she is able to hear the conversation. As soon as the conversation is finished, both parties hang up their receivers, the light is extinguished, and the operator removes the plugs.

Following this elucidation of the telephone, through what circumstances can an injury occur either to the operator or the individual at each end of the line, the conclusions are as follows: An injury through the electric current can be excluded even though the high voltage enters the line as by lightning or through the coming in contact of broken electric railway or telegraph wires with the telephone wires, short circuit, locally all wires are underground, and injury through high tension wires and lightning must be excluded, such an injury being possible only in long distance phone. Those disturbances caused by the low voltage circulating through the phone circuit are a mechanical factor which may become of greater importance in the following manner: If the subscriber becoming impatient after calling central, and pulls the hook up and down (very rapidly several times, increasing the movements of the membrane in the receiver, this being pressed closely to the ear the air pressure in the external canal is suddenly increased to such an extent as to cause earache, nervous symptoms, and as in the case reported by Veis, a rare occurrence, rupture of the membrane.

Another cause which is mentioned by Veis, in rare cases through contact of two wires, a subscriber involuntarily connects with another and in this manner by ringing and turning crank, cause some disturbance. This cannot occur under our present system, but was possible under the old Kinloch, that of pressing the button and turning the cranks. Often charges are made against the operator through no fault of her own.

Third, a defect in the receiver the membrane may be bent and in swinging to and fro may be caught, the current is increased until it forces the membrane back, this movement causing a pop and a sudden fluctuation of the air in the canal, which under certain circumstances may cause considerable damage. If the insulation on the wire of the receiver is worn, damage may also result.

Blegvad in volume 72 of the Archiv fuer Ohrenheilkunde has written the most extensive paper ever published on the subject, entitled "On the Action of the Use of the Telephone on the Body in General, with special Reference to the Ear." He examined some 450 telephone operators with regard to conditions of the ear, and also to nervous and other general disturbances. In 371 operators 26.4 per cent he found a retraction of the membrane used for the telephone, this may have been caused, directly or indirectly, by the telephone. The use of the telephone as a profession does not cause a diminution of the hearing in operators with normal hearing as was thought by some of the early writers, as Blake, Gelle, Braunstein and others. We have no proof that there is an improvement of the hearing, as is believed by some, very likely the ear becomes accustomed to the telephone and the hearing improves by adaptation. As to whether the regular use of the telephone aggravates ear disease or causes it has not been proven, although cases are on record where sudden loud noises and lightning have done so. He thinks it advisable that only persons with normal ears should enter the service.

The complaints usually heard are tinnitis, earache, headache and vertigo without anatomic changes, barring perhaps a slight redness of membrane. These may be due to a general nervousness brought about by the conditions of the work.

Braunstein, Kurella and Bernhard each report a case of severe symptoms due to entrance of high voltage current into the circuit which ran a mild course with complete recovery. Blegvad reports 27 cases of operators who from same source showed functional disturbances showing the picture of a traumatic neurosis.

Patients complained of a severe popping, followed by nervous shock, hysterical attacks and paralysis, severe neurotic and in some psychic disturbances. The course of the disease was tedious, some of the patients never recovered. These conditions were all due to entrance of high voltage current, in none could the influence of electricity, as by lightning, etc., be proven.

Veis in the Archiv fuer Ohrenheilkunde, volume 79, 1 and 2, reports a case of rupture of the membrane, in an operator, due to persistent ringing of an individual. Tinnitis and pain which increased in intensity toward evening. During the night the pain disappeared and in the morning the ear was moist. The examination revealed a normal right ear, the left ear showed a pale red, wave-like membrane, in posterior superior

quadrant a bulging, in the anterior inferior quadrant a bloody serous secreting perforation. Functional examination showed the following: Whispered voice heard 2 meters, 6½ feet. Weber lateralized to the left. Rinne negative which showed that process was limited to middle ear. Europhen, boric acid insufflation stopped the discharge and the perforation healed rapidly, in twelve days, through catheterization the hearing was again normal, membrane assumed its normal shape, scar of healed perforation was not visible. In giving an expert opinion Veis claimed that the appearance of the membrane, relaxation and perforation, was due to action of the increased air pressure and the picture was much the same as that following a blow on the ear. My case can be explained in the same manner.

As a matter of precaution it would be well to have the telehpone company modify its instructions and request users of the telpehone to hold the receiver lightly to the ear, conversation can be heard just as well. The laying of the wires under ground will also do away with another serious objection.

Four Years in Tuberculosis Dispensary Work.—In giving, in the Old Dominion Journal of Medicine and Surgery for Nov., 1909, a statistical analysis of over 150 cases of tuberculosis seen by him in four years, Dr. B. M. Randolph says, under the subhead Bacilli, that he does not think that the sputum examination is entitled to the important place it holds. Of course the discovery of bacilli is a very easy and comfortable way to settle the diagnosis. But practically every case of pulmonary tuberculosis ought to be recognized before the bacilli appear in the sputum. The prognosis in cases treated before the breaking down of tissue begins is generally excellent for complete and permanent recovery. Where tissue destruction has taken place, prognosis is not nearly so good for any kind of recovery, and for a complete and permanent restoration is not good at all. Too great reliance on sputum examination leads physicians to neglect the proper study and analysis of the clinical history and physical signs. Furthermore patients naturally get to consider it the final test, and it becomes difficult to induce them to accept the diagnosis at the time when it is most important for them to do so. I do not recall but one case in my experience in which bacilli were found in the sputum, that did not present other evidences of the disease from which the diag nosis could be made.

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EDITORIAL

A Sure (?) Cure for Eczema.

Some remarkable things in the way of medical information and misinformation reach us through various channels, and we know of no channel more fertile than the literature which accompanies some of the remedies which we are urged to use. Within the past fortnight we have received advance literature from the manufacturers of what purports to be a most wonderful soap; if half what is said for it is true it is one of the scientific discoveries of the age and its manufacturers are public benefactors. According to no less a personage than one whose letter-head announces the president of a medical college, and who is said to be a past president of the American Institute of Homeopathy the soap possesses the following virtues:

"1. It removes dirt, grime, grease, paint, ink, fruit stains and iodine stains and never fails.

"2. As a deodorizer and disinfectant it is remarkable. It at once removes all odors from the hands or other parts of the body. It will polish instruments and render them perfectly aseptic.

"3. In skin diseases its virtues are even more wonderful. I have never known it to fail to cure eczema, salt rheum and chapped hands where its use was continued and no other soap employed. I have known it to cure many cases of eczema of long standing and have never known it to fail in a single case. I have cured many cases of acne on the faces of young ladies, and which never returned unless they again commenced using ordinary toilet soaps. It does its work rapidly and effectually. It always leaves the skin soft and velvety, even in the case of mechanics. It is certainly a wonderful product, and I think everyone would use it if they knew its virtues as I do."

The mysterious secret of this wonderful effectiveness is "saxonite." And what is saxonite? Read what those best informed on the subject have to say of it:

"The mineral, to which has been given the name 'Saxonite,' is a new discovery. The Geological Survey at Washington has no record of it. They class it as volcanic in origin. It is neither pulverized nor ground, but is used in the manufacture of the soap in its natural condition. Ninety-eight per cent of the mineral as it is mined will pass through a bolting cloth with 250 threads to the inch, the finest bolter that is manufactured. Scientific investigation up to the present time has failed to develop the curative agent contained in this mineral. It is antiseptic, disinfectant, and a powerful deodorant. We have to rest entirely upon the statement of scientific men that it actually produces cures and to leave unanswered the question why. Although it may be unsafe to state that an entirely new therapeutic principle is involved in the action of this mineral, yet it appears to be the only reasonable theory yet advanced."

Those of us who have struggled with chronic eczema may read all this without being ready to accept it as conclusive, but there are, unfortunately, those in the profession who will invest and experiment before they will discover that the eminent doctor was talking homeopathy, and that there is but a 3x of truth in his enthusiastic statment. If we are deceived we are more than willing to be enlightened, but the enlightenment must come before we place our chronic eczemas on the treatment.

The South's Fight for Race Purity.

We have been considerably interested in an article which appeared in the February Pearson under the above caption, and have waited somewhat longer for comment thereon from the South than we had expected. That the first attention given the article should have been so entirely expressive of our own opinion as we had formulated it but accentuates the justice of the criticism. A large element among urban negroes is so depraved as to justify their being considered a menace to the community, but they have no monopoly on depravity, they take to all the vices, and these vices mean their ruin just as they are the ruin of those whites who embrace them. Venereal disease is so common among them as to be the rule and cure is not contemplated, amelioration satisfying. This is in the larger cities and speaks only of the lower stratum, but there is little evidence that there is traceable contamination of whites as a consequence. The editor of the Altanta Journal-Record of Medicine, in his February issue, has the following to say anent this article:

"A rather interesting, but illogical article appeared in the February number of Pearson's magazine. Interesting because the facts regarding the 'social evil' or venereal diseases are so rarely found in public print; illogical, because the question is limited to the South and almost the entire burden of it is thrown upon the colored woman. To read what Woolley himself has to say of the subject, one would be lead to believe that the venereal peril was limited to the South, and yet, to take his statistics, one does not find facts from which to draw such a conclusion, nor are such facts in existence.

"That there are more venereal diseases among the white people of the South, has not, I believe, been even so much as hinted at before. Nearly all of the statistics quoted are from Northern cities, or the nation at large.

"Baltimore and Washington being the only two cities below the Mason and Dixon line from which statistics are taken. Woolley reasons that, since venereal disaeses are more prevalent in negroes than in whites, therefore all of the licentious whites of the South contract their diseases from the negro. The weak point of his argument is that he does not show, or even attempt to show, that these diseases are limited to the South, or even more common, there than in the East, or North or West, where there are few negroes.

"The statistics of foreign countries where the records are much more accurately kept than they are in the United States, and where negroes are rare, show that these diseases are even more prevalent there than here.

"Why, then, should the negro alone be blamed for them in the South? That they contribute, we are willing to admit; that their contribution, is greater than is that of the corresponding poor foreigners of New York, Chicago and other cities, we deny. It seems rather unusual for a Southerner to have to refute facts against the negro which appear in a Northern magazine. And yet, such is the present instance. The white servant girls of the North, probably spread as much disease as do the colored servants of the South.

"The effort to lessen the evils arising from venereal diseases, is both timely and most commendable and we heartily agree that the public at large knows little of the danger, or the matter would not be viewed so complacently or the usual efforts to give the subject its needed publicity would not be so quickly smothered. The statistics quoted by Woolley are the stock ones of medical literature and abound in medico-sociologic work, he, however, sidesteps the main issue and localizes and narrows a subject that should be dealt with in a broader manner in which sexual purity, not a minor phase of it—miscegenation, is the chief factor."

Remedial Measures Other than Drugs in Cardiac Diseases.

There are four cardinal factors, other than drugs, in the treatment of cardio-vascular disorders, says Dr. H. A. Hare*. These are in order of importance, rest, massage, hydrotherapy, and diet. It is a great mistake to treat ruptured cardiac compensation with drugs without the use of rest, and this for two reasons: (1) Only by rest can a tired organ recover its strength, and (2) only by skilful adjustment of the dose to the needs of the patient can success be achieved. For no patient going about on his feet presents physical signs which may be called his "pathological norm," and such a one, examined in the physician's office may seem to need very large doses; whereas, if examined after twelve or twenty-four hours in bed, no drug at all, in the sense of cardiac stimulation, may be required. Not only is this true of the heart, but of the vessels as well, for rest raises hypotension and lowers hypertension, and by so doing restores, at least in, part, a normal relation between the heart and its vessels, a relationship which, if disordered, results not only in disturbed cardiac action, but interferes with the nutrition of the entire body, and of the heart in particular, and also involves the activity of the liver as a destroyer of poisons and of the kidneys as excretive organs. Massage is of little value in edematous cases, but of superlative value in cardio vascular diseases with high tension. Hydrotherapy is designed to maintain vascular elasticity, and is most advantageous. Both it and massage are of value in case of hypotension to re-establish normal vascular tone. In dieting the allowance of food chiefly depends upon the circulatory state of the gastroduodneal tissues and the liver. Usually it is useless to give enough food or drug to be of value, until the patient's liver is unloaded by a mercurial purge and the low-grade gastrointestinal catarrh dissipated.

*Therapeutic Gazette.

Medical Society of the Missouri Valley.—The spring meeting of this society, to be held in Omaha, March 17 and 18, promises to be an event of unusual interest, judging from the program just received from the secretary. Twenty-four papers, and two evening addresses will fill up the two days sessions, while Thursday evening the members will be entertained as guests of the Omaha-Douglas County Medical Scoiety.

Leprosy Scares.—During January a rumor prevailed in Chicago to the effcet that leprosy was present in the city, and that it was introduced and spread by the medium of artificial hair imported from Oriental countries. A similar report was published as fact some three weeks later in St. Louis and was made to represent a local condition. Various attempts to trace the reports to their source have failed completely, nothing more definite than "hearsay" reports being obtainable.

Touring the Lands Where Medical Science Evolved.—Those who are enjoying the entertaining letters from the pen of Dr. Eccles, appearing in the Fortnightly—and who is not?—will be pleased to know that the doctor's next and last contribution of the series will take the reader through America, and incidentally portraying the part our own beloved country has taken in the evolution of the science of medicine, as well as touching upon the important position she now occupies in the world of medical and surgical progress. We await Dr. Eccles' next letter with interest.

Grand Opera for St. Louis.—Westerners, Southwesterners, and others who are interested in grand opera, but do not feel justified in journeying as far as New York to patronize the world's operatic stars, will have an opportunity to hear them in April at St. Louis, and at comparatively popular prices. This opportunity results from the organization, by wealthy St. Louis music-lovers, of a grand opera committee to assure a partronage sufficient to defray the enormous cost of elaborate operatic productions. The Metropolitan Opera Company of New York, whose directors, public-spirited New Yorkers, instead of deriving any profit from it, are obliged, each year, to make up a de-

ficit of from $500,000 to $1,000,000, has accepted the St. Louis committee's invitation to bring to St. Louis in April such stars as Caruso, Bonci, Amato, Martin, Farrar, Gadski, Alda and Noria. To encourage persons residing in neighboring cities and towns to avail themselves of this opportunity, the railroads have decided to make special rates to St. Louis and return. The opera difficulty in this section of the country has been to get an auditorium having, in addition to a stage sufficiently large for an elaborate operatic production, sufficient seating capacity to assure enough revenue to defray the cost. The Metropolitan Opera Company has played in St. Louis to capacity houses at a loss. This difficulty is solved by the new Coliseum, in St. Louis, whose normal seating capacity is more than 10,000. The space required for a special stage, dressing rooms, and the orchestra will reduce the seating capacity to about 5,000. But even the great opera houses of New York seat considerably less than 5,000. The enormous seating capacity of the Coliseum accounts for the ability of the St. Louis committee to stage the world's best grand opera at prices bringing it within reach of all. Approximately $10,000 will be expended on stage equipment and other improvements necessary to assure the success of the April engagement. A stage which will enable the elaborate productions of the Metropolitan in all their details will be erected, and the floor will be terraced or sloped from the stage back, so that the rear seats will furnish a full view of the performance. Acoustically, the Coliseum is generally conceded to be well fitted to grand opera. Madame Calve, after singing in the Coliseum, became enthusiastic over its acoustics, which Paderewski afterward pronounced "wonderful." Damrosch recently described the Coliseum's acoustics as "marvelous," and added that no New York auditorium possessed acoustics quite so perfect. Tetrazzini this month sang with great success in the Coliseum to the largest audience of her career. All of these matters of music urged the use of the big building for grand opera. The dates and prices will be announced later.

Strong, hot coffee, drunk without seasoning, in those cases of labor where there is uterine inertia, will increase the pains actively.

Cases of polyuria occurring during pregnancy have been relieved by an abdominal supporter. The disorder is supposed to be caused by mechanical pressure.

MEDICAL PROGRESS

Comprising the Regular Contributions of the Fortnightly Department Staff.

INTERNAL MEDICINE.

O. E. LADEMANN, M. D.

The Relation of Alcohol to Immunity.—Parkinson (London Lancet, Nov. 27, 1909) says alcohol in small quantities has no action upon phagocytic activity. It has no action on the phagocytic activity until it is present in 12.5 per cent strength. Small quantities of alcohol injected into rabbits may stimulate the production of antibodies temporarily. A large dose of alcohol lowers the opsonic index for 24 hours. Continuous moderate doses of alcohol cause a permanent lowering of the opsonic index. The reacting mechanism to vaccines is much less effective in alcoholized rabbits than in normal rabbits; the difference is still more marked when living micro-organisms are used.

Results of Three Years' Experience in Bacterial Immunization.—Thomas (Jour. A. M. A., Jan,. 291, 910) offers the following conclusions based on a study of bacterial vaccines employed in 106 various affections: 1. The diseases contraindicated for bacteria therapy are the diffuse infections characterized by septicemia, pyemia and grave sapremia. 2. Those in which therapy by this agent is beneficial or curative are the superficial acute, subacute and chronic processes, especially the last two. 3. The acute cases in which brilliant results can be uniformly expected are those of acne vulgaris, furunculosis, carbunculosis and subcutaneous abscesses. 4. Subacute and chronic gonorrheal and tuberculous affections are amenable to bacterial immunization and because of the impossibility and impracticability often of employing an autogenous bacterin the reliable stock preparations should be used. 5. Certain acute gonorrheal infections can be benefited. 6. It is questionable whether tuberculin therapy should even be employed in very acute tuberculosis. Opinion is divided as to whether or not acute miliary tuberculosis and death supervened as a result of tuberculin therapy in one of the author's cases. 7. The mixed infections in chronic tuberculous disease afford an important prospective field for alternating bacterial inoculations and tubercular therapy. 8. Autogenous bacterins are always to be preferred over the stock preparations, and success or failure frequently depends on this fact. 9. Although the duration of the period of great-

est potency of bacterins is undetermined, the best results have been obtained when the pus has been recultured and a fresh bacterin prepared every two to four weeks. 10. It is believed that the best effects, therapeutically, particularly in chronic cases, occur when the quantity of bacterin is slowly and cautiously increased during successive inoculations, there by, as has been thoroughly demonstrated in tuberculin therapy, avoiding hypersusceptibility or anaphylaxis. 11. Therapy by both bacterins and tuberculins can be satisfactorily executed by keen observance of the clinical symptomatology. Reliance on the opsonic index as a guide is not only unnecessary, but often actually conducive to erroneous conclusions, owing to its variability. 12. Bacterin therapy, by virtue of its potency to do more harm than good, when unskilfully managed, will or should probably not become a universal therapeutic measure in the hands of the general practitioner, unfamiliar with bacteriology or work in the laboratory. Ignorance and wantonness are incompatible with ambition and energy, and an otherwise meritorious therapeutic agent thus abused will ultimately fall into disrepute. 13. Therapy by the employment of bacterins made from bacillus pyocyaneus has been entirely useless. 14. Bacterins and tuberculins are not "cure-alls," but when intelligently used serve as invaluable aids to nature in fortifying the bodily defenses, thereby accelerating convalescence, diminishing complications and promoting cure.

A Skin Reaction in Carcinoma from the Subcutaneous Injection of Human Red Blood Cells.—Elsberg, Neuhof and Geist (The Am. Jour. of the Med. Scs., Feb., 1910) made 684 injections in a total of 432 patients including patients with carcinoma in whom the diagnosis was positive, patients in whom the absence of malignant diseases was certain, possible carcinoma and very advanced and miliary carcinoma. The injections consisted of a 20 per cent suspension of washed red blood cells, a detailed description of its preparation the reader must be referred to the original article. It is important that the individuals from which the blood is taken be free from any evidence of disease. Five minims of the blood cell suspension is injected in an upward direction under the skin, at a spot where there are no visible veins. The injection produces an evanescent elevation of the skin and is painless. The reaction begins to show itself in about five hours after the injection, it gradually increases in intensity until it has reached its height in six to eight hours. It may appear sooner than the time stated, even as early as two hours after the injection, or may require eight hours before it becomes evident. When fully developed, the reaction appears as somewhat irregular oval area with a well defined margin measuring from 1x2 to 3x5 cm. The margin is often surrounded by a whitish areola. The color of the lesion varies from a brownish red to a maroon, with, rarely a bluish tinge. The lesion is distinctly raised from the surrounding skin surface. The authors deduce the following conclusions: 1.The subcutaneous injection of human red blood cells prepared in the manner described by them is, in certain individuals, followed by a characteristic and easily recognizable local skin lesion or reaction at the site of injection. 2.The large majority of the patients (89.9 per cent) in whom this skin reaction was observed were suffering from carcinomatous disease. 3. The large majority of patients (94,3. per cent) in whom no characteristic skin lesion followed the injection were free from carcinoma.

A Family Epidemic of Acute Trichiniasis.—Hirsh (Jour. A.M.A., Jan. 8 1910) details 5 cases occurring in household of eight members who contracted trichiniasis from eating raw ham. The three members escaping the infection , namely, the grandmother, mother and servant, did not eat any of the ham. The symptoms in the main offered the following interesting points. The earliest symptoms showed themselves about the sixth to tenth day after the ingestion of the meat. Edema of the eyelids was present in every case; in three of the patients it was the first symptom observed. This edema was of a character resembling that seen in Bright's disease. In two patients the entire face was puffy. No swellings were noted elsewhere. Gastrointestinal symptoms were the following: Abdominal cramps were present in all; in two of a particularly severe type. Nausea and vomiting was noted in two cases. Muscle pains were prominent symptoms. All complained of general soreness over the entire body. In two cases the temperature remained constantly high; in three these were intermissions, the temperature at times remained normal for 36 hours and gradually rising to 103. Chills were not present in any. The pulse corresponded to the temperature. The urine was negative. The stools contained no parasites. Urticaria was present in one case, lasting for three days and practically involving the entire body. Eosinophilia was constant varying from 8 to 45 per cent.

Two Signs of Diagnostic Value.—Abraham (New York Med. Jour., Jan. 8, 1910) describes two signs which he claims are valuable, one in gall-stones and the other in incipient pulmonary tuberculosis. The sign in gall-stones consists of a painful area in the right hypochondriac region, midway between the umbilicus and the ninth costal cartilage. To ilicit the phenomenon Abraham places the patient in the recumbent position with the arms and legs extended. Ascertain the above point, then with a sudden thrust press the index and middle finger of the right hand into that point. The effect on the patient is like an electric shock; there is either a grimace on the face donating suffering or a quick involuntary jump ot the abdomen, as if it were struck with a pointed instrument. In an acute attack with a diffuse area of hyperesthesia the midway point mentioned is the point of maximum pain. In chronic cases the painful point is present at all times, while the surrounding area may be insensitive. The absence of this point after its repeated presence in a case long under observation speaks in favor of gall-bladder which has got rid of its stones. The sign in pulmonary tuberculosis consists in an elevation of the cutaneous temperature on the affected. A reliable clinical thermometer is placed at the supraclavicular space of one side, covering the bulb snugly and completely with the folds of the skin allowing the thermometer to remain four or five minutes. In case of bilateral apical involvement the temperature obtained in both supraclavicular spaces will be higher than the axillary temperature.

SURGERY.

C. W. HEPBURN, M. D.

Acute Gangrenous Cholecystitis; Gallstone in the Cystic Duct; Perforations of the Gall Bladder—In Medical Record for Nov. 20, 1909, Dr. Espy Williams reports a case of the above, interesting both for its rarity and virulence. After the diagnosis of acute cholecystitis had been made, symptoms developed that led to a suspicion of rupture of the organ and an operation was immediately performed. Bevan's incision was used to allow of plenty of room for working. Upon entering the cavity there was found a small quantity of thin, straw-colored fluid. The gall-bladder could not at once be seen, that area being covered by dense and greatly inflamed omental adhesions. In freeing adhesions to get at the organ a small pocket, containing about two ounces of dark fetid bile, and situated above the transverse colon, was opened. After liberating all adhesions the gall-bladder was found, deeply situated and slightly reduced in size. Its walls were deeply injected and the lower third of the organ, which had been free from adhesions, was covered by thick flocculi of fibrin. The entire fundus of the bladder was gangrenous, and near the periphery of the dead area a small opening exuded thick, black bile. The organ was emptied, through a trochar, of about one ounce of thick, black, and foul-smelling bile; the gangrenous area was pinched off with forceps and the remainder of the cavity dried out. With the finger upon the outer surface of the gall-bladder a small stone could be felt, wedged within the cystic duct, and this was pushed up without much difficulty and removed. This was the only stone present. The operation was completed by leaving several forceps attached to the half of the organ which remained, introducing a split rubber tube-gauze drain within the cavity, and surrounding the whole with a large split tube, so arranged as to protect the abdominal cavity below. The wound was closed in tier fashion. The time of operation was thirty-five minutes and patient left the table in very good condition. Ether was the anesthetic used. No bile whatever was discharged from the wound for three days, after which time it began flowing freely. The forceps were removed on the third day and all other drainage on the seventh, the patient being by this time in most excellent condition. He was discharged from hospital on the eighteenth day, with the wound still draining bile. This discharge ceased at the end of the fourth week after operation.

The Anatomical Aspect of Fractures.—Dr. J. Appleton Nutter, in Montreal Medical Journal for Nov., 1909, describes the anatomical aspects of fractures of the clavicle, scapula, humerus, ulna, radius, femur and patella. The diagnosis of fracture depends upon the recognition of signs or symptoms which tell at what point a bone has been broken, where the fragments are, and the method of reduction, and which are not present by chance, but depend very largely upon the anatomical relations of the one in question. We learn in physiology that muscles are in a constant state of tonus or tension, and nowhere do we see this more clearly exemplified than in fractures. Let a man knock his elbow, breaking off the olecranon process, and immediately the triceps pulls and pulls upwards, until that

separated piece of bone, into which this muscle is inserted, has been displaced upwards to a considerable degree. We must conceive of a bone, especially a long one, as constantly holding its own against the opposing pull of muscles or groups of muscles, the flexors pulling against extensors, the abductors against adductors, and so on. When a fracture occurs each fragment is at the mercy of the strongest muscle or set of muscles attached to it, and that fragment, like the olecranon mentioned above, will act accordingly. By this we see how much importance is attached to a knowledge of the insertion and action of the muscles attached to a bone. The study of osteology certainly is not limited to an acquaintance with its ridges, grooves, and depressions alone. In addition, the bony landmarks need attention, and while in a dissecting room grind one may fail to see the value of Nelaton's line, in fractures and dislocations around the hip it is of great service. Many other points might be mentioned as being of value from a surgical standpoint, as for instance what important structures lie near the bone at favorite seats of fracture, the manner in which a bone grows old, and so on. As regards the first, a good example is found in the musculospiral nerve, which following fractures of the shaft of the humerus is frequently involved in the callus thrown out, thus producing paralysis. A knowledge of these anatomical points will give us valuable information as to the probable seat of fracture, and, as Helfreich puts it, "Speed and accuracy of reduction depend on a knowledge of the typical displacement."

Tubercular Infection of the Peritoneum.—In ending his extended paper on this subject, in International Journal of Surgery for Nov., 1909, Dr. W. H. Allport gives the following conclusions as worthy of more than ordinary attention: The apparent difference in the incidence of peritoneal tuberculosis in the male and female is apparent rather than real, and such difference as exists is due altogether to the inclusion of the female organs within the peritoneal cavity. The apparent differences in the form of peritoneal tuberculosis are due: 1st, to differences in the location and structure of the organs involved; 2d, to a recognition of the disease at various stages in its development. Pathologically, the disease has but one form, which unfolds itself along the same morphological lines as in other parts of the body. Peritoneal tuberculosis is never primary. The most common avenue of entrance is the bowel; next, the lymph glands; next, the female genitals. Bowel infection may be secondary to that of the peritoneum, and the female genitals may receive infection the same retrograde manner. Gravity plays an important part in the spread of intra-peritoneal tuberculosis. The same is true of diffusion by contact and continuity. Temprature of a markedly febrile character is an indication of mixed infection. Especially true is this of remittent fever. High leucocytosis and temperature following operative interference are favorable conditions, and indicate good resistance of the individual to the farther progress of the disease. In abdominal operations followed by prolonged fever and delayed convalescence, the possibility of the existence of hitherto unsuspected tuberculosis should be carefully canvassed by the operator. All specimens removed at abdominal operations should be thoroughly inspected for tuberculosis. The theory that ascitic fluid has a protective, curative, opsonic, or otherwise salutary function is incapable of proof. . . Statistics, approved by the best modern opinion, show that simple incision with thorough evacuation of the fluid, without drainage, increases by a very appreciable precentage the certainty and rapidity with which climate, hygiene and diet can effect a permanent cure . . Radical operations, such as curettage, erosion, resection, continued drainage—quite beneficial in joint surgery—should have no place, except as emergency measures, in dealing with the intraperitoneal lesions of tuberculosis. Drainage is a "snare of the devil," and is especially apt to be followed by serious and often fatal fecal fistula in the dry forms of tubercular peritonitis. Statistics show conclusively that its practice leads to evils which are worse than the original disease.

Excision of the Joints.—Dr. Kingman B. Page, in his article in International Journal of Surgery for Nov., 1909, touches upon the history of excision from Hippocrates down to the present, when it has fallen into neglect. The surgeon of to day is a devout worsihipper at the shrine of vis medicatrix naturae, a charming but fickle goddess, and with his profound regard for conservatism, and oft blinded by bigotry, fails to grasp the value of excision; thus we see daily such examples of joint and bone deformities, easily remediable by resection or excision, as would cause our immediate surgical ancestors to turn in their graves. Excision is indicated in cases of joint injury as a primary operation where experience teaches that an immovable joint will follow.

It is applicable as a secondary procedure in bony or fibrous anchylosis, in irreducible or unreduced dislocations, or cured tubercular disease. It may replace amputation in compound or complicated joint injury, for by it the surgeon may reasonably expect to save and secure a useful limb. It is contraindicated in the extremes of age, in the presence of marked arteriosclerosis or diabetes, also in injuries where the damage to the main and collateral blood supply is sufficient to render gangrene probable. In recent years the improvement in the technic of the classical resections by the inter position of fatty, muscular or fascial tissue between the bone ends has further increased the promise of a favorable result. The recent successful work of Lexer in transplanting an entire articulation is still in the experimental state, but marks a great stride in the advance of joint surgery, by the proof of its possibility. The writer has operated on eight cases of anchylosis of the elbow. All the patients are able to pursue their former vocations, several of which are laborious, and all are agreed that the movable joint is a great gain over the previous fixed condition.

Fractures of the Clavicle.—In a paper on fractures of the calvicle in International Journal of Surgery, Dr,. W. F. Westmoreland, after a comprehensive review of the subject, describes his own simple technic for the reduction and treatment of these fractures. He has taught and practiced it for the past fifteen years and has never had a patient, treated by the method, complain of any discomfort. The fracture is reduced by position, the patient being laid flat on his back on a table; if allowed to remain this way for a few minutes, with arm comfortably by the side, the fracture usually reduces itself. The patient is now pulled over the end of the table until the scapula clears it; an assistant supports the patient's head with one hand and the shoulder with the other; the latter hand is placed on the spine between the shoulder-blades, so the scapula can swing clear. The line of the body is kept on a level, but the shoulders are allowed to drop to a lower level. The fracture is usually reduced by position alone when the scapula clears the table. If the fracture is not reduced, the arm is slightly abducted from the side and gently pushed a little toward the head, keeping it upon the same line, and the acromion process is gently pushed back, approximating the scapula behind; this always reduces the fracture. The reason the fracture is not always reduced by position alone is the nervous dread of the patient, which makes him stiffen and contract his muscles. With the patient in above position, a plaster-of-Paris splint is applied. Before the patient is placed on the table a closely fitting undershirt is put on. If only a loose one can be secured, cut it open and fit it as closely as possible. Over this the splint is applied. The plaster-of Paris splint should come well down over the ribs, so as to support the shoulder without the edge of the plaster of the opposite side pressing into the ribs, which will occur if the body part of the splint is too short. The position of the arm of the injured side is immaterial. It is better to abduct the arm just enough to be able to pass the bandage easily under the axilla.

Dr. S. A. Knopf.—On Thursday March 17, at 8:15 p. m., at the Third Baptist Church, Grand and Washington, Dr. S. A. Knopf, of New York, will deliver a public address on Tuberculosis under the auspices of the Municipal Commission on Tuberculosis. Admission will be free, and all interested are earnestly invited. Dr. Knopf is known throughout the medical world for his study of the tuberculosis problem. His essay, "Tuberculosis, a Disease of the Masses and How to Combat It," was awarded the international prize at the International Congress to Combat Tuberculosis as a Disease of the Masses, held at Berlin, May 24 to 29,1889. It has gone through five American editions, and has been translated into Arabic, Portuguese (Brazil), Bulgarian, Dutch, Finnish, French, German, Hebrew, Hungarian, Icelandic, Italian, Japanese, Polish, Russian, Servian, Swedish, Spanish, (Mexico and Spain), and Turkish. Dr. Knopf should have an audience and a welcome worthy of his reputation.

Scabies.—

Beta-naphtholis.....grn. xx
Sulphuris precipitati.....
Balsami Peruvianae.....aa 3j
Ungt. zinci oxidi.....3j

M. Ft. ungt. Sig.: Apply freely twice daily to the parts affected.

The patient should first take a hot bath before applying the ointment for the first time, then every second night before retiring. Request your patients also to change their underwear and bed linen every second day so as to prevent reinfection.—Med. Bulletin.

AMERICAN MEDICAL ASSOCIATION
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THE MEDICAL FORTNIGHTLY

A Cosmopolitan Biweekly for the General Practitioner

The Medical Fortnightly is devoted to the progress of the Practice and Science of Medicine and Surgery. Its aim is to present topics of interest and importance to physicians, and to this end, in addition to a well-selected corps of Department Editors, it has secured correspondents in the leading medical centers of Europe and America. Contributions of a scentific nature, and original in character, solicited. News of Societies, and of interesting medical topics, cordially invited.

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Contributions and books for review should be addressed to the Managing Editor, 319 and 320 Century Building, St. Louis, Mo.

MEDICAL MISCELLANY

The Southwest and Indigent Dying Cases of Consumption.—In a statement recently given out by the National Association for the Study and Prevention of Tuberculosis, Eastern doctors who send dying cases of consumption to the Southwest are accused of cruel and inhuman practices. It is asserted that 7180 hopelessly diseased consumptives annually go to die in the states of California, Arizona, New Mexico, Texas and Colorado, most of them by order of their physicians; that 50 per cent of these are so far advanced in their disease that they cannot hope for a cure in any climate, under any circumstances, and that 60 per cent of these advanced cases are too poor to provide the proper necessities of life, which means that 4315 consumptives are either starved too death or become public charges in that section every year. Efforts are being made to remedy this unfortunate condition.

Electric Anesthesia.—Following close upon Dr. Jonnesco's stovaine-strychnine spinal anesthesia comes a reported successful demonstration by Dr. L. E. Rabinovitch, at St. Francis's Hospital, Hartford, Conn., of electric anesthesia for the amputation of several toes. The latest knowledge on the subject of electric sleep or analgesia was reported last fall by Tait and Russ in an article in the Journal of the American Medical Association. Like all new things in medicine, the possible practical value of electricity as a surgical anesthetic must be tested by further experience. The conclusion is that a vast amount of investigation will be required before a safe and reliable agent to replace chemical narcosis will be found in electricity.

Commercial Food Products.—The comparative nutritive value of these much advertised and belauded compounds has been the subject of investigation by government officials, and the following excerpt from Bulletin No. 114 of the Bureau of Chemistry of the Department of Agriculture, at Washington, D. C., in reference to the same, should furnish food for thought to the practitioner who prescribes these meat extracts, meat juices, etc., for his patients: "It seems to be the consensus of opinion among scientific investigators who have studied this question, that the food value of these meat extracts is rather limited, and although they are a source of energy to the body they must not be looked on as representing in any notable degree the food value of the beef or other possible conditions; a commercial meat extract is of necessity, in order that it may not spoil, deprived of the greater part of the coagulable proteids which constitute the chief nutritious elements of the juice."

Alcohol From Sawdust.—In reply to an inquiry concerning the manufacture of alcohol in France, Consul-General Frank H. Mason, of Paris, writes: "Very little timber or lumber is sawed in or near the forests of France, so that the supply of material for such a process, would be limited and expensive. Apparently the only establishment for the manufacture of alcohol from sawdust is at St. Marcel, in the Department of Ardeche, in the south of France, not far from the Mediterranean,. It is a

new, up-to-date concern and employs a highly improved process of an inventor of Aix la Chapelle, which consists in exposing sawdust to sulphurous acid gas, where by a chemical action is induced which enables the aclohol to be generated and extracted without being mixed with or contaminated by the sulphur, as had always happened when sawdust was macerated in a solution of sulphuric acid under the older processes. Consequently, it is claimed that wood alcohol made by the new process can be drunk or used for any other purpose to which pure alcohol is usually applied. One metric ton (2,204 pounds) of sawdust yields by this process 100 liters, or 27.47 gallons, of alcohol, 20 kilos (42 pounds) of acetic acid, and the residue, or spent sawdust, is pressed into briquettes and used as fuel. Consequently it is claimed that the process is very profitable. The process is patented, of course, in France and the United States."

Texas New Sanitary Code.—By the adoption and putting into effect of he new Texas sanitary code, pest camps for patients afflicted with smallpox will soon be a thing of the past. From time immemorial, whenever smallpox has seized upon a community it has been the practice to send such person or persons to detention camps. When this has been done the county and city have been put to the expense of equipping these camps, and the pay of the city or county health officer has been ten dollars a day for taking care of the smallpox patients. Under the new sanitary code smallpox is no longer considered in the category of pestilential diseases. When a person contracts the disease the patient is quarantined at his own home, where he can be attended by his regular family physician, thus saving expense to the county in medicine and doctors' bills. It is required, however, that a house where such disease exists be suitably flagged or placarded, so as to put the public on notice of the existence of the disease therein.

Sweating Feet.—Make a solution of potassium permanganate so that it will be a deep red color. Soak the feet in it for fifteen minutes before retiring. The next night make a solution of formaldehyde, a dram to a pint of water, and soak the feet in this for fifteen minutes. Continue these alternate treatments till the excessive perspiration stops. If the skin is already abraded, use a weaker solution of formaldehyde to start with, as it will cause intense smarting on an abraded surface; one can speedily increase the strength of the solution as tolerance is established and as the skin becomes toughened. Make up a powder composed of a dram of salicylic and a dram of tannic acid with an ounce of boric acid. Dust the feet with this in the morning, and sprinkle the inside of the socks with it before putting them on. It may be necessary, at intervals of a few months, to resume treatment for a few nights only.--Med. World

A Physician's Resort.—Those of our readers who have visited Excelsior Springs recently, and are familiar with the curative virtues of "sulpho-saline" and "regent" springs, have noted with pleasure the many improvements in this resort, and have commented favorably upon the management of the New Elms, with its modern hydro-therapeutic department. For many years the lack of suitable bathing facilities had been a serious drawback to Excelsior Springs, and many physicians had discontinued sending patients there on this account. With the opening of the new Elms, however, this fault has been completely remedied, and no more complete bath establishment can be found anywhere. Here the doctor may prescribe the Turkish, needle, vapor cabinet, electric light and sulpho-saline baths, with scientific massage or electricity, and feel assured that his instructions will be carried out to the letter, as all treatments are administered by trained attendants. Patients need not go out of the hotel either for treatment, or to drink the waters, as the various mineral waters are fresh on draught in the lobby of the Elms, or will be served in guests' rooms without charge. The table at the Elms is supplied with the very best the market affords, milk and cream being furnished from a certified Jersey herd. Mr. Emmke, the genial manager, is an obliging, painstaking host, and has the happy faculty of making his guests feel "at home" while sojourning in his very hospitable hostelry. If you have never visited Excelsior Springs, and know nothing personally concerning this little resort, with its truly wonderful waters, we would advise you to take a few days off this spring, and become acquainted with this place. It will do you good, and you may be able to impart the practical knowledge thus gained to the benefit of some poor sufferer whose digestive apparatus has rebelled at your medicine, and who needs a few days rest and respite—from doctors and doctoring. Take it from one who has been there; it will do you good. The spring of the year is the most beautiful season at Excelsior Springs. The Wabash railway runs convenient trains from St. Louis, Kansas City, Des Moines, and other points. Get information from any ticket agent.

MEDICAL MEMORANDA.

Burnham's Soluble Iodine is tolerated by the weakest stomach and can even be given in cases which show a marked idiosyncrasy to iodine. A standard and uniform strength, absence of any alkaline salt or other disturbing vehicle and complete assimilation render this preparation all that could be desired in the various indications for the iodine therapy.

The Bromides.—"The over-stimulation of the cerebral functions from alcohol yields promptly to the soothing action of Peacock's bromides, which will often prove to be a stand-by in cases of delirium tremens. In these patients in whom the commercial bromides should not be exhibited on account of their usual irritating action on a stomach already seriously affected, Peacock's bromides will fully meet the requirements."

To Gently Excite Glandular Secretion.—Without the slightest irritative effect on even the most irritable gastric mucous membrane, seng gently but effectively excites grandular secretions. An improved circulation follows as a necessary sequence, and the adjacent tissues are correspondingly nourished. This means increased muscular tone and a much more effective motility of the gastric and intestinal muscular coats. Gastric motility itself promotes secretory activity of the inner coats. The reciprocal relations of the various physiologic processes are therefore beautifully illustrated by this chain of events—a happy circle, as it were—with seng, through its initial effects on the gastric glands, is able to establish. No tissue or organ is benefited at the expense of another. The gain of one is the gain of all and, logically, a gain for the whole body."

Treatment of Chronic Bronchitis.—Underlying a chronic bronchitis there will be found a state of reduced vitality. The chronic condition has fixed itself and the weakened system is unable to throw it off and restore itself to normal—the system's elasticity, its ability to rebound, as it were, is gone. There is urgent need of an agent that will build up and restore the resisting powers, so that the chronic bronchial condition may be eliminated. Cordial of the extract of codliver oil compound (Hagee) by reason of its soothing effects on inflamed mucosae, and above all else, its power to build up a debilitated subject, put new blood in his arteries and stamina in his body—is the remedy par excellence for this purpose.

Symptomatic or Complicating Anemia is that form or condition of blood poverty which results from various constitutional infections and diatheses. Prominent among such causes are, syphilis, rheumatism, paludal poisoning, tuberculosis, carcinoma, etc. In many instances, such an anemia is due to some obscure, latent metabolic perversion, or a slow but persistent intestinal auto-intoxication of gastro-intestinal origin. While it is an axiomatic principle that successful therapy depends upon the removal of the causative factor, it is more than often wise and eminently judicious to adopt direct hematinic treatment while the underlying cause is being sought for and combatted. Pepto-Mangan (Gude) being bland, non-irritant and readily tolerable, can almost always be given, with distinct advantage to appetite, digestion, nutrition and general well-being, while causative therapy is under way. Neither constipation nor digestive disturbance results from its steady use, and a general hematic gain is practically a certainty, if its use is persisted in.

Important Announcement.—We, the Waterbury Chemical Co., assure the medical and pharmaceutical professions that our preparation, Waterbury's metabolized cod liver oil compound, is not misbranded under the meaning of the Pure Food and Drug Law. It is manufactured and labelled in the same manner as ever and is guaranteed by us under Serial No. 185. As the government's seizure of a shipment of our goods from the warehouse of the Washington Wholesale Drug Exchange was in direct contradiction of the provisions of Section 4 of the Pure Food and Drug Act, which clearly defined the proper mode of procedure in these cases, we assert that the same action was illegal. Section 4 of the Pure Food and Drug Act is as follows; Section. 4. "That the examinations of Specimens of food and drugs shall be made in the Bureau of Chemistry of the Department of Agriculture or under the direction and supervision of such bureau for the purpose of determining from such examinations whether such articles are adulterated or misbranded within the meaning of this act; and if it shall appear from any such examinations that any of such specimens are adulterated or misbranded within the meaning of this act, the Secretary of Agriculture shall cause notice thereof to be given to the party from whom such sample was obtained. Any party so notified shall be given an opportunity to be heard, under such rules and regulations as may be prescribed as aforesaid, and if it appears that any of the provisions of this act have been violated by such party, then the Secretary of Agriculture shall at once certify the facts to the proper United States attorney, with a copy of the results of the analysis or the examination of such article duly authenticated by the analyst or officer making such examination, under the oath of such officer. After the judgment of the Court, notice shall be given publication in such manner as may be prescribed by the rules and regulations aforeaid." It will be first noted, that all examinations shall be made in the Bureau of Chemistry of the Department of Agriculture or under direct supervision and

not by outside analysts. It will be further noted, that if upon examination such articles are shown to be misbranded, the party charged with this offense shall be given an opportunity "to be heard." It will further be noted, that the law specifically provides that the ultimate findings be given for publication only after due judgment of court. Wherefore, we assert, that to the best of our belief and knowledge no analysis has been made of Waterbury's metabolized cod liver oil compound in the Bureau of Chemistry of the Department of Agriculture. We further assert, that if such examinations were made we were not notified of the findings and where not given "an opportunity to be heard." We further assert that the libel filed by the Government upon the 4th day of October, 1909, was given for publication and appeared in the Journal of the American Medical Association October 23, 1909, and other periodicals before the judgment of any court. It is therefore plain that in the seizure of these goods the law has been violated, wherefore we beg your fair and unbiased consideration until such a time as this matter is definitely settled.—WATERBURY CHEMICAL COMPANY.

Blood Taints.—Of the diseases coming within the daily experience of the general practitioner, none presents features of more unusual interest or farther reaching consequence than those marked by what might be termed a "blood taint." Such diseases hold the physician's attention not alone by reason of the interesting phenomena which owe their origin to the impaired nutritional powers of a tainted blood stream, but also to the immediate and remote gravity of the disease process, in most instances of a progressive type. Syphilis easily heads the list of "taint diseases" and to it may be attributed a fairly large share of the world's woes. The facility with which syphilis is transmitted gives it a far wider distribution than other disorders partaking of similar characteristics, and, in consequence of this feature, physicians, in general, more promptly recognize its manifestations. Also, in view of its destructive tendencies when unskillfully treated, they are more keenly apprehensive of its course and outcome. High up among the great humanitarian works of the future will be found that devoted to the prevention of this disease. The patient endeavors of Metchnikoff and his associates, blazing the way to the goal of positive prevention of syphilis, well entitled these tireless investigators to honors no less exalted than those accorded Jenner. But the prevention of syphilis is too great a problem for the unaided general practitioner to solve and then, too, more urgent problems face him and of these none is of more importance than the successful management of syphilis. The eradication of syphilis from the tissues of the human body will lie in the mighty potency of mercury and iodine. Were the cleansing influences of these two drugs unavailable to the luetic patient, he, truly, would be as pitiable an object as the leper, against whose affliction the forces of drugs are as nothing. Mercury and iodine with vegetable alteratives are the only dependable prescriptions, and modern pharmacy has devised no better means of utilizing these antisyphilitics than Tilden's elixir iodo-bromide of calcium comp., with or without mercury. In this elixir the drugs under discussion are incorporated and associated with synergists from the vegetable or botanical kingdom, sarsaparilla, stillingia, prickly ash, burdock, taraxacum, etc. in such form that the elixir in proper dosage, acts in specific fashion and is adapted for use in all stages of the disease.

Bromalbin in Epilepsy.—The defects of the inorganic bromides in the treatment of epilepsy and other convulsive disorders have long been recognized by medical practitioners. While the bromides have been extensively prescribed—because nothing better had been devised to take their place—their proneness to derange the stomach and to produce systematic disturbances has militated against their usefulness. The "something better" appears now to be at hand. Reference is made to bromalbin, an organic compound in which bromine is chemically combined with albumen. Bromalbin contains approximately 15 per cent. of bromine. It is in the form of a light-yellow powder and is odorless and practically tasteless. It is insoluble in water, alcohol, acids and the ordinary solvents, but is slowly soluble in alkaline solutions. Bromalbin was evolved in the chemical laboratories of Parke, Davis & Co. Before being offered to the medical profession at large it was subjected to thorough clinical test by leading practitioners throughout the country in a large number of cases in which bromine medication was indicated. Reports of its use in the treatment of epilepsy were highly encouraging, and the belief is expressed that it will prove equally efficacious in hysteria, neurasthenia, reflex headache, insmonia, migraine, and other nervous affections. The chief advantage of bromalbin over the inorganic bromides appears to be in its adaptation to long-continued treatment. It passes through the stomach practically unchanged, consequently does not produce the gastric irritation common to the alkaline bromides. Slowly dissolving in the intestinal secretions, it is then absorbed, producing a gentle, prolonged systemic effect. Other advantages are: its more complete absorption, its comparative tastelessness, and the small likelihood that it will produce acne, dizziness, or other symptoms of bromism. It is marketed in powder form (ounce vials) and may be given in water, coffee, chocolate, syrups, wine or any beverage not alkaline in character. It is also supplied in 5-grain capsules (bottles of 100), in which form, perhaps, it is likely to be most commonly used. There is wide need of a sedative such as bromalbin promises to be, and fuller reports on the new agent will be awaited with interest by the profession.